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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,149	11/25/2003	Jeon-Hong Kang	1594.1318	4302

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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

LEUNG, PHILIP H

ART UNIT PAPER NUMBER

3742

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,149

Applicant(s)

KANG, JEON-HONG

Examiner

Philip H Leung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. The drawings filed 11-25-2003 are acceptable.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-3, 6 and 8-16 are rejected under 35 U.S.C. 102(a) as being anticipated by Kim (US 6,509,556).

Kim shows “a wall-mounted microwave oven for use in cooking food comprising a cabinet mounted at a rear surface thereof on a wall of a cooking space, and having a cooking chamber 132 to cook the food therein, and a machine room 136 to house a plurality of electrical components for use in cooking the food, and which is isolated from the cooking chamber 132, an exhaust path to exhaust contaminated air generated from a cooking appliance installed below the wall-mounted microwave oven; a cooling-ventilation path to cool the machine room and to ventilate the cooking chamber (see the air flow path f as shown in Figure 4 and col. 4, line 48 – col. 5, line 32 (for claims 3 and 16)), and a blower fan assembly including a drive motor 102

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having a pair of shafts (first and second shaft 124') at both ends thereof to generate a rotating force, an exhaust fan 114 joined to one shaft of the drive motor to create a suction force and a propulsive force to cause the contaminated air to flow along the exhaust path, and a cooling-ventilation fan 124 (positioned on the upper surface (claims 2, 9 and 13)) joined to the other shaft of the drive motor to create a suction force and a propulsive force to cause air to flow along the cooling-ventilation path" as claimed in claim 1 and similarly in claims 8 and 12. In regard to claim 6, the sirocco fan 114 has the same function as the claimed centrifugal fan (see Figure 3). In regard to claims 10 and 14, it shows an air inlet (inlet to duct 133) and outlet (outlet of 136) in the front of the oven cabinet (see Figure 4). In regard to claims 11 and 15, there are openings on the wall separating the cooking chamber and the machine room as shown in Figure 4.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 6,509,556), in view of Maeda et al (US 5,981,929) or Kaminaka (US 4,786,774).

Kim shows every feature as claimed except for the fan assembly being rotatably mounted for airflow in different directions (claim 7). Maeda shows a mountable microwave oven with a ventilating assembly including the use of different directions of the outlet opening 113 for coupling the fan assembly (105, 124) to an outlet duct (see Figures 4, 5, 6A, 6B and 6C

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and col. 6, line 1- col. 7, line 12). Kaminaka also shows a microwave oven with a ventilator system wherein it can be adjustably rotated to change the direction of the exhaust (see Figures 1, 10 and 11 and col. 2, line 1 – col. 3, line 35). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kim to use rotatably mounted fan coupling so that it can be adjustably rotated to change the direction of the exhaust depending on the installation condition for a more versatile product, in view of the teaching of Maeda or Kaminaka. In regard to claims 4 and 5, as set forth above, Kim shows every feature and structure as claimed and additionally including front inlet and outlets and openings in the partition plate between the cooking chamber and the machine room, the exact flow path would have been a mere engineering variation of the air flow path f shown in Figure 4 of Kim.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

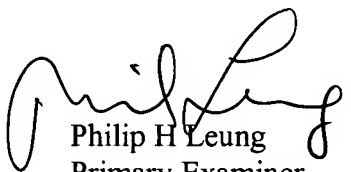
White et al (US 4,327,274) and Larsen et al (US 4,332,992) are further cited to show microwave ovens with various air ventilation paths.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip H Leung whose telephone number is (703) 308-1710.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Pothier can be reached on (703) 308-0265. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Philip H Leung
Primary Examiner
Art Unit 3742

P.Leung/pl
5-26-2004